

What is claimed is:

1. An oligonucleotide for cleavage, detection or amplification of the *mecA* gene, a gene element of methicillin-resistant *Staphylococcus aureus* (MRSA), or RNA derived from said gene, which oligonucleotide is capable of binding specifically to said *mecA* gene or RNA derived therefrom, and comprises at least 10 contiguous bases of any of the sequences listed as SEQ. ID. Nos. 1 to 17, or an oligonucleotide complementary to said oligonucleotide.
2. The oligonucleotide according to claim 1, wherein said oligonucleotide is an oligonucleotide primer for DNA elongation reaction.
3. The oligonucleotide according to claim 1, wherein said oligonucleotide is an oligonucleotide probe a portion of which is modified or labeled with a detectable marker.
4. The oligonucleotide according to claim 3, wherein said oligonucleotide is a synthetic oligonucleotide in which a portion of its base(s) is(are) modified without impairing the function of said oligonucleotide as an oligonucleotide probe.
5. A detection method employing a RNA amplification process, which comprises the steps of:
  - forming a cDNA with a RNA-dependent DNA polymerase using a specific sequence of a RNA derived from *mecA* gene, a gene element of MRSA, present in a sample as a template, with a first primer having a sequence homologous to said specific sequence and a second primer having a sequence complementary to said specific sequence, wherein either the first or second primer has a sequence having the RNA polymerase promoter sequence added at its 5'-region, thereby producing a RNA-DNA double-strand; digesting the RNA of said RNA-DNA double-strand with Ribonuclease H to form a single-stranded DNA; and then forming a double-stranded DNA that includes a promoter sequence allowing transcription of said RNA sequence or a RNA comprising a

sequence complementary to said RNA sequence with a DNA-dependent DNA polymerase using said single-stranded DNA as a template, said double-stranded DNA produces a RNA transcription product in the presence of a RNA  
5 polymerase, and said RNA transcription product is subsequently used as the template for the single-stranded DNA production with said RNA-dependent DNA polymerase; characterized in that the oligonucleotide of SEQ. ID. No.18 is used as the first primer and the oligonucleotide  
10 of any of SEQ. ID. Nos.19 to 21 is used as the second primer, or the oligonucleotide of SEQ. ID. No.22 is used as the first primer and the oligonucleotide of SEQ. ID. Nos.23 or 24 is used as the second primer, or the oligonucleotide of SEQ. ID. No.25 is used as the first  
15 primer and the oligonucleotide of SEQ. ID. Nos.23 or 24 is used as the second primer.

6. The detection method of claim 5, characterized in that said first primer is an oligonucleotide comprising at least 10 contiguous bases of the sequence  
20 of SEQ. ID. Nos.18, 22 or 25.

7. The detection method of claim 5, characterized in that said second primer is an oligonucleotide comprising at least 10 contiguous bases of the sequence of SEQ. ID. Nos.19, 20, 21, 23 or 24.

25 8. A detection method for a methicillin-resistant *Staphylococcus aureus* (MRSA), which comprises the steps of: conducting the RNA amplification process according to claim 5 in the presence of an oligonucleotide probe labeled with an intercalator fluorescent dye, wherein the  
30 sequence of said probe is complementary to at least a portion of said RNA transcription product, and complementary binding of said probe to said RNA transcription product results in a change of the fluorescent property relative to that of a situation  
35 where a complex formation is absent; and then measuring the fluorescence intensity of the reaction solution.